Economic Analysis of Pepper Cultivation In India

S.P.Subha, Dr.S.Balamurugan
Research Scholar, Research Guide and supervisor
Assistant professor in commerce Head, Assiatant Professor
Theni College of Arts and Science
Department of commerce
Veerapandi. Theni Dt
C.P.A College, Bodinayakanur.

ABSTRACT

Pepper cultivation is concentrated on the western Ghats in India. India account for 17% of the world's Production of pepper and is the second largest producer after vietam. Kerala and Karnataka are the major pepper producing states in India but Kerala ranks first position followed by Karnataka and Tamil Nadu. The present study examines the pepper cultivation and yield of pepper in India and Kerala. In recent year the area, production, productivity of the crop is declining trend. Secondary data are collected from journal, magazine, Newspaper and relevant book and websites that in order to study the cultivation problem garrets ranking techniques was applied. Finally conclusion were drawn and suggestion were offered.

Keywords: *Pepper Area, Production, Productivity, Trend, CGR.*

INTODUCTION

In this world pepper is produced in the particular geographical regions . The major producers of pepper in the world are Vietam, "Briazil, India Indonesia, Sirlanka etc. India has been the land of choicest spices and the best aroma breezes from its soil from time immemorial. Black pepper is a native of tropical evergreen forest of india. Pepper cultivation plays a key role in India's exports. In Nature, agricultural practices pepper can be cultivated as main crop as well as inter crop . Black pepper is a flowering vine in the family and cultivated for its fruit, which is usually dried and used as a spices ad seasoning.

STATMENT OF THE PROBLEM

India is an agricultural country. More than 70 Per cent of its population are engaged in agricultural activity either directly or indirectly .Pepper is mostly cultivated in southern state of India, especially Kerala, Karnataka and Tamilnadu. The industries provide major employment to the people. Now-a-days the cultivation of pepper in India is not up to the mark due to the enhancement of labour cost and input cost. Besides farmer are also facing the cultivation and marketing problems. This is due to the increase in the cost of production and less selling price. Thus a net return from cultivation is very lower to the farmers due to many reasons. The study to analysis the area, production, productivity of pepper in different phases and associated problems is felt necessary and socially relevant.

Objective of the Study

The study to analysis the trend and growth in area, production, productivity of pepper cultivation

METHODOLOGY

This study is based on the secondary data. The data collection is through various government websites and sources like State Agri/ horticultural/DASD Kozhikodu, Department of Economics and statistics, Indian Agricultural statistics And articles, International journal of science and research

REVIEW OF LITERATURE

According to **Yogesh, M. S and Mokshapathy .S (2013)[2]**,India is the second largest pepper producer in the world. In India, Karnataka and Kerala are the major pepper producing states. Kerala is the largest producer of pepper, accounting over 50 per cent of India's total output followed by Karnataka and Tamilnadu. They also pointed out that, India's domestic demand is anticipated at 45,000 tonnes per annum

Regeena .S (2016)identified from her study "Economic Analysis of Black Pepper Cultivation in Kerala" that, ensuring planting of improved high yielding varieties like Panniyur 1 to Panniyur 8 depending on availability of sunlight, proper and scientific crop management, ensuring prophylactic measures for pest and disease management, promoting good agricultural practices and a more regulated system of planting with standards of uniform height will be helpful in improving overall production and productivity. She also insisted that proper awareness given to pepper producers on post-harvest handling and value addition of pepper will also could help them to realise better income from pepper crop.

Framework analyysis

Growth Performance and Magnitude of Variability

In order to estimate the growth rate in area, production and productivity in pepper cultivation, Compound growth rate will be used. The extent of variation in production , productivity and export of pepper will be calculated with the co-efficient of variation.

Table - 1

TREND COEFFICIENT,GROWTH RATE AND MAGNITUDE VARIABILITY IN AREA OF PEPPER CULTIVATION IN INDIA FROM 2007- 08 TO 2017 -2018

COUNTRY	SEM-LOG		R^2	CGR	C.V%
	CONSTANT	REGRESSION CO-EFFICENT			
Area	**5.365 (0.92)**	**-.053* (.014)**	**.627**	**-212.98**	**22.22**

Source: computed data

*Significant at five per cent level CGR – Compound growth rate,

**Significant at one per cent level CV – Co – efficient of variation.

It is observed from the table 1 trend in area under pepper cultivation in India is negative but 5 per cent level. It reveals that area under pepper cultivation did not decreased significantly during the study period. The analysis reveals area under pepper cultivation in india had decreased at the rate of 212.98 per cent per annum. The co - efficient variation is 22.22 . Which indicates wide fluctuations in the level of area of pepper in India .

Table - 2

TREND COEFFICIENT,GROWTH RATE AND MAGNITUDE OF VARIABILITY OF PEPPER PRODUCTION IN INDIA FROM 2007- 08 TO 2017 -2018

COUNTRY	SEM-LOG		R^2	CGR	C.V%
	CONSTANT	REGRESSION CO-EFFICENT			
Production	**3.743 (0.077)**	**0.041* (.011)**	**.591**	**9.90**	**18.16**

Source: computed data

*Significant at five per cent level

**Significant at one per cent leve

The result of the analysis in table 2 show the trend in area under pepper production in India is positive and 5 per cent significant level. It inferred from the table pepper cultivation in India had increased at growth rate 9.90 percent per annum. The analysis reveals that there is 18.16 percent variation in the production of pepper in india during the study period.

Table - 3

COMPOUND GROWTH RATE AND MAGNITUDE OF VARIABILITY OF PEPPER PRODUCTIVITY IN INDIA FROM 2001- 02 TO 2017 -2018

COUNTRY	SEM-LOG		R^2	CGR	C.V%
	CONSTANT	REGRESSION CO-EFFICENT			
productivity	**-1.602 (0.159)**	**.081* (0.023)**	**0.570**	**20.50**	**32.65**

Source: computed data
*Significant at five per cent level
**Significant at one per cent level

Table 3 indicates the productivity of pepper cultivation in India is positive and statisticallyat five percent level. It shows that there is significant increase in pepper productivity in India . It inferred from the above analysis pepper cultivation in India had increased at growth rate 20.50 percent per annum. The analysis reveals that there is 32.65percent variation in the productivity of pepper in India during the study period.

Table – 4

TREND COEFFICIENT,GROWTH RATE AND MAGNITUDE VARIABILITY IN AREA OF PEPPER CULTIVATIONIN KERALA FROM 2007- 08 TO 2017 -2018

country	Sem-log		R^2	CGR	C.V%
	Constant	Regression Co-efficent			
Area	5.309 (0.124)	-.092* (0.018)	0.736	-223.59	35.43

Source: computed data
*Significant at five per cent level
**Significant at one per cent level

It could be observed from the table 4 trend in area under pepper cultivation in Kerala is negative but 5 per cent level. It reveals that area under pepper cultivation did not decreased significantly during the study period. The analysis reveals area under pepper cultivation in Kerala had decreased at the rate of 223.59 per cent per annum. The co - efficient variation is 35.43. indicates wide range of difference in the level of area of pepper in kerala.

Table – 5

TREND COEFFICIENT,GROWTH RATE AND MAGNITUDE OF VARIABILITY OF PEPPER PRODUCTION IN KERALA FROM 2007- 08 TO 2017 -2018

country	Sem-log		R^2	CGR	C.V%
	Constant	Regression Co-efficent			
Production	3.750 (0.179)	-.046* (0.026)	0.252	-211.17	27.82

Source: computed data
*Significant at five per cent level
**Significant at one per cent level

The table 5 shows that trend in production under pepper cultivation in Kerala is negative but 5 per cent level. It reveals that area under pepper cultivation did not decreased significantly during the study period. The analysis reveals area under pepper cultivation in Kerala had decreased at the rate of 211.17 per cent per annum. The co - efficient variation is 27.82.It indicates wide fluctuations in the level of production of pepper in Kerala.

Table – 6

TREND COEFFICIENT,GROWTH RATE AND MAGNITUDE OF VARIABILITY OF PEPPER PRODUCTIVITY IN KRELA FROM 2007- 08 TO 2017 -2018

country	Sem-log		R^2	CGR	C.V%
	Constant	Regression Co-efficent			
Productivity	-1.669 (0.320)	0.064** (0.047)	0.169	15.61	46.78

Source: computed data
*Significant at five per cent level
**Significant at one per cent level
Table 3 indicates the productivity of pepper cultivation in Kerala is positive and statistically at one percent level. It shows that there is significant increase in pepper productivity in kerala. It inferred from the above analysis pepper cultivation in Kerala had increased at growth rate 15.61 percent per annum. The analysis reveals that there is 46.78 percent variation in the productivity of pepper in Kerala during the study period.

Suggestions

- The government can give free training in the application of new techniques
- Pepper growers are to motivated to form a grower's association in micro-level and to meet periodically to discuss the issues relating to pepper cultivation.
- Crop insurance for pepper crop to make good the loss incurred by the growers
- The improved and hybrid varieties must be resistant .They must be suitable for cultivation in high attitudes and adaptable to different agro climate condition

- Co-operating farming may be taken up by enclosing large for cultivation. In such case, integrated pest management, effective labour management and co- ordinate functioning in all aspect of cultivation are possible.

Conclusion

Pepper, being a significant foreign exchange earner and a source of income and employment to people from time immemorial, deserve a planned and continuous attention. It is a goose that lays golden eggs. Any step taken in the right direction by the people concerned such as producers,traders,exporters government and the like would go a long way in reaffirming the share. The present study has brought into focus various issues relating to production. The policy implications suggested, if properly implemented may result in increase revenue for the nation and for the people.

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